

1.8M C & Ku-Band Rx/Tx

Series 1183

Technical Specifications

Electrical		C-Band Linear	C-Band Circular	Ku-Band
Antenna Size		1.8 M (71 in.)	1.8 M (71 in.)	1.8 M (71 in.)
Operating Frequency (GHz)	Receive	3.625 - 4.20 GHz	3.625 - 4.20 GHz	10.95 - 12.75 GHz
	Transmit	5.85 - 6.425 GHz	5.85 - 6.425 GHz	14.00 - 14.50 GHz
Midband Gain (+/- .2dB)	Receive	35.50 dBi	35.50 dBi	45.00 dBi
	Transmit	39.50 dBi	39.50 dBi	46.50 dBi
Antenna Noise Temperature				
10° Elevation		56 K	30 K	44 K
20° Elevation		49 K	23 K	38 K
30° Elevation		47 K	21 K	35 K
40° Elevation		46 K	20 K	33 K
Sidelobe Envelope, Co-Pol				
Mainbeam < θ < 7°		29 - 25 Log θ dBi	29 - 25 Log θ dBi	29 - 25 Log θ dBi
7° < θ < 9.2°		+8 dBi	+8 dBi	+8 dBi
9.2° < θ < 48°		32 - 25 Log θ dBi	32 - 25 Log θ dBi	32 - 25 Log θ dBi
48° < θ < 180°		-10 dBi (averaged)	-10 dBi (averaged)	-10 dBi (averaged)
Cross-Polarization (Linear)		>30 dB on axis	N/A	>30 dB on axis
Axial Ratio (Circular)	Receive	N/A	2.28	N/A
	Transmit	N/A	1.60	N/A
VSWR		1.3:1 Max.	1.3:1 Max.	1.3:1 Max.
Feed Interface	Receive	CPR 229 F	CPR 229 F	Available in a variety of designs
	Transmit	CPR 137 or Type N	CPR 137 or Type N	

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, One-Piece Offset Feed
Mount Type	Elevation over Azimuth
Mast Pipe Size	3.5" SCH 40 Pipe (4.00" OD) 10.16 cm.
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous
Shipping Specifications	C-Band: 175 lbs Ku-Band: 160 lbs

Environmental Performance		
Wind Loading	Operational	45 mph (72 km/h)
	Survival	125 mph (201 km/h)
Temperature	Operational	-40° to 140° F (-40° to 60° C)
	Survival	-50° to 160° F (-46° to 71° C)
Rain	Operational	1/2"/hr
	Survival	2"/hr
Ice	Operational	-----
	Survival	1/2" radial
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas	
Solar Radiation	360 BTU/h/ft ²	

GENERAL DYNAMICS SATCOM Technologies

1500 Prodelin Drive • Newton, NC 28658 USA • Telephone: +1-828-464-4141 • Fax: +1-828-464-4147
Email: vsat@gdsatcom.com • Web Site: www.gdsatcom.com

1000-013 Rev. 05/11